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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,265	08/07/2001	George Z. Hu	26761U	4890
20529	7590	10/29/2007		
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER HOEKSTRA, JEFFREY GERBEN	
			ART UNIT 3736	PAPER NUMBER
			MAIL DATE 10/29/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/924,265

Applicant(s)

HU ET AL.

Examiner

Jeffrey G. Hoekstra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43, 45-52 and 54-58 is/are pending in the application.
- 4a) Of the above claim(s) 1-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42, 43, 45-52 and 54-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/13/2007</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Notice of Amendment***

1. In response to the amendment filed on 08/13/2007, amended claim(s) 42, 46-52 and 54, canceled claim(s) 44 and 53, withdrawn claim(s) 1-41, and new claim(s) 55-58 is/are acknowledged. The current rejections of the claim(s) 42, 43, 45-52 and 54 is/are *withdrawn*. The following new and reiterated grounds of rejection are set forth:

### ***Information Disclosure Statement***

2. The information disclosure statement(s) (IDS) submitted on 08/13/2007 is/are acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the examiner is considering the information disclosure statement(s).

### ***Claim Objections***

3. Claim 42 is objected to because of the following informalities: the positive recitation of "a patient" in line 5 should apparently read "the patient". Appropriate correction is required.

4. Claim 42 is objected to because of the following informalities: the positive recitation of "the visual cortex" in line 6 should apparently read "a visual cortex". Appropriate correction is required.

5. Claim 42 is objected to because of the following informalities: the positive recitation of "the collection" in line 20 should apparently read "a collection". Appropriate correction is required.

6. Claim 42 is objected to because of the following informalities: the positive recitation of "the occurrence" in line 21 should apparently read "an occurrence".

Appropriate correction is required.

7. Claim 57 is objected to because of the following informalities: the positive recitation of "the thickness" in line 3 should apparently read "a thickness". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 42, 43, 45-52, 54-55, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaufman et al. (US 5,517,021, hereinafter Kaufman).

10. Kaufman discloses a medical examination system, comprising:

- a means for presenting (display element 88) a series of sensory stimuli for perception by a patient, said means for presenting comprising a computer controlled visual stimulus generating device (as best seen in Figures 3, 9A, and 9B) (column 6 lines 51-57);
- a means for detecting electrical signals (electrode elements 20-30, 60-64, and 102) representative of the patient's evoked potentials in response to said sensory stimuli (column 2 lines 55-68, column 6 lines 45-50), said means for detecting comprising a plurality of electrodes connected to the patient (20-30, 60-64, and 102), wherein

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said electrodes are capable of being connected to a scalp of the patient and at least one of said electrodes is capable of being placed over a visual cortex of a patient;

- a means for amplifying (amplifier element 68) said signals, connected to said means for detecting (column 6 lines 27-32);
- a means for converting (A/D converter element 78), connected to said means for amplifying, said signals into digitized data (column 6 lines 25-39, said means for converting comprising an analog to digital converter (78);
- a means for recording (memory storage element 84) said data (column 6 lines 38-44, column 6 lines 58-61), connected to said means for converting;
- a means for measuring said data (computer element 82) connected to said means for recording (column 6 lines 38-44, column 6 lines 58-61);
- a programmable computer processor (computer element 82), connected to said means for measuring and to said means for recording, executing instructions for analyzing said data (computer element 82) (column 6 lines 38-44, column 6 lines 58-61); and
- a computer program (column 6 lines 50-61) running on said programmable computer processor and comprising algorithms (column 6 lines 50-61),
- wherein said programmable computer processor and said algorithms are capable of recording, measuring, determining, analyzing, and comparing said data
  - to predetermined values to determine if said data is outside of predetermined ranges and thus is unreliable data (column 9 lines 28-56),

- for determining whether said electrical signals reach a maximum value of the output of said means for amplifying said signals due to data saturation (column 7 lines 58-60),
- for determining and recording if the Fourier component of said electrical signals at 60 Hz exceeds a threshold value via Fourier transform routine (column 4 lines 33-59),
- for determining and recording if said data abruptly jumps beyond predetermined ranges (column 9 lines 56-58),
- for determining and recording if said signals drift (column 5 line 60 – column 6 line 6) due to poor electrode connection by using an average algorithm (column 8 lines 39-48) to smooth out said electrical signals over a period of time resulting in a curve of average signals versus time,
- is capable of determining and recording if said signals drift by further integrating each segment of said curve, and determining if the maximum value after segment integration exceeds a threshold value,
- for determining whether said signals drift by using an average algorithm to smooth out said electrical signals over a period of time resulting in a curve of average signals versus time, integrating each segment of said curve and determining if the maximum value after segment integration exceeds a threshold value, and
- for determining if said data passes a scattering check.

***Claim Rejections - 35 USC § 103***

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11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufman in view of Miller et al. (US 6,629,935 B1, hereinafter Miller). Kaufman teaches a medical examination system as set forth above but does not expressly disclose a hood placed between the patient and said means for presenting. Miller teaches a medical examination system including a hood (3) placed between the patient and said means for presenting. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. All of the component parts are known in Kaufman and Miller. The only difference is the

combination of the component parts into a single device. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the components as taught by Kaufman with the components as taught by Miller to achieve the predictable results of providing a structure to isolate a part of the sensory system under examination to increase the diagnostic efficacy of a medical examination system.

14. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufman in view of Miller et al. (US 6,629,935 B1, hereinafter Miller). Kaufman teaches a medical examination system as set forth above but does not expressly disclose the sensory stimuli comprising a series of six patters of alternating and contrasting horizontally-oriented light and dark bans, wherein each patter differs from other patters by the thickness of each band. Miller teaches a medical examination system including a means for presenting a series of sensory stimuli for perception by a patient, wherein the sensory stimuli comprise a series of six patters of alternating and contrasting horizontally-oriented light and dark bans, wherein each pattern is capable of differing from other patterns by the thickness of each band (as best seen in Figure 1, 8A, and 9A). All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. All of the component parts are known in Kaufman and Miller. The only difference is the combination of the component parts into a single device. Thus, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the components as taught by Kaufman



with the components as taught by Miller to achieve the predictable results of providing a variety of sensory stimuli or patient perception to increase the diagnostic efficacy of a medical examination system.

***Response to Arguments***

15. Applicant's arguments with respect to claims 42, 43, 45-52 and 54-58 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is


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(571)272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571)272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J.H./  
Jeff Hoekstra  
Examiner, Art Unit 3736

  
M. F. HINDENBURG  
PATENT EXAMINER  
EBC CENTER 3700